

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

TBK-Patent
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22. Sep. 2004

TBK - PATENT

PCT

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY
EXAMINING AUTHORITY

(PCT Rule 66)

Date of mailing
(day/month/year)

20-09-2004

Applicant's or agent's file reference

WO 36757

REPLY DUE

within 60 days from
the above date of mailing

International application No.

PCT/IB2002/005531

International filing date (day/month/year)

19-12-2002

Priority date (day/month/year)

-

International Patent Classification (IPC) or both national classification and IPC

H04Q7/38, H04L12/28

Applicant

Nokia Corporation et al

1. ☐ The written opinion established by the International Searching Authority:
☐ is ☐ is not
considered to be a written opinion of the International Preliminary Examining Authority.
2. This First (first, etc.) opinion contains indications relating to the following items:
 - ☒ Box No. I Basis of the opinion
 - ☐ Box No. II Priority
 - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability.
 - ☐ Box No. IV Lack of unity of invention
 - ☒ Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Box No. VI Certain documents cited
 - ☐ Box No. VII Certain defects in the international application
 - ☐ Box No. VIII Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(e).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis. For an informal communication with the examiner, see Rule 66.6. For an additional opportunity to submit amendments, see Rule 66.4.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary report on patentability (Chapter II of the PCT) must be established according to Rule 69.2 is: 19-04-2005

Name and mailing address of the IPEA/SE

Patent- och registreringsverket
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Form PCT/IPEA/408 (cover sheet) (January 2004)

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19.11.04 ✓

WV 19.10.

WRITE OPINION OF THE
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PCT/IB2002/005531

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion is based on a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
☐ publication of the international application (under Rule 12.4)
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this opinion has been established on the basis of (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."*):

☒ the international application as originally filed/furnished

☐ the description:

pages _____ as originally filed/furnished

pages _____ received by this Authority on _____

pages _____ received by this Authority on _____

☐ the claims:

pages _____ as originally filed/furnished

pages _____ as amended (together with any statement) under Article 19

pages _____ received by this Authority on _____

pages _____ received by this Authority on _____

☐ the drawings:

pages _____ as originally filed/furnished

pages _____ received by this Authority on _____

pages _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to the sequence listing (*specify*): _____

International application No.
PCT/IB2002/005531

1. Statement

Claims 1, 5-8, 11, 12, 14, 18-21, 24, 25, 27
Claims 31-35, 39-42, 44, 45

Claims	<u>2-4, 9, 10, 13, 15-17, 22, 23, 26, 28-30</u>
Claims	<u>36-38, 43, 46</u>

Claims	
Claims	

The claimed invention relates to an improvement of the mechanism used for communication connection changeover decisions in wireless frequency multi-band networks.

Reference is made to the following documents:

D1: GB 2 373 966 A

D2: WO 99/05873 A1

The document D1 is regarded as being the closest prior art to the subject-matter of independent claims 1, 14, 27 and 35, and discloses (See page 3, line 4-line 19; page 3, line 25-page 4, line 20; page 6, line 24-line 31; page 7, line 17-line 21; page 9, line 28-page 10, line 5; page 10, line 20-line 24; page 11, line 11-line 24): A system, method and a communication device comprising a distributed radio concept, wherein communication information associated with a first network may be transmitted to/from a node belonging to a second network. Wireless devices are adapted to communicate with any of the two networks and can also communicate with each other via WPAN (Wireless Personal Area Network). The communication information may comprise network configuration, neighbour cell lists, loading level etc. The retrieved information is to be used when determine whether to handover to another network, frequency carrier and/or air interface mode (page 3, line 25-page 4, line 19).

What is claimed in claims 1, 14, 27 and 35 is thus already known from D1. Therefore these claims fail to describe a novel invention.

D1 do describe a network in which radio devices may operate in different air interface modes. D1 does however not specifically mention WLAN.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Instead D1 describe the two interfaces GSM and W-CDMA and how information about carriers belonging to these air interface modes may be forwarded to radio devices via the nodes in the system and, when necessary, also relayed via WPAN. The person skilled in the art which is faced with the problem of providing carrier frequencies for an alternative mode/standard, such as WLAN, has the knowledge to do so without having to take any inventive steps. It is, thus, considered as an obvious alternative to also implement the arrangement in association with a WLAN and to provide access and carrier frequencies belonging to a WLAN to the wireless devices of the proposed arrangement. The coexistence of WPAN and WLAN is also mentioned on page 3, line 6-9. Therefore, claims 2,3,15,16,28,29,36 and 37 fail to involve an inventive step.

D1 fails to discuss the use of broadcasted beacon packets. Broadcasting of beacon signals is, however, commonly known and used for example in GSM. An implementation of such a function is also described in D2 (See page 7, line 17-page 8, line 3; page 8, line 13-line 20), in which document a hand-off procedure based on pilot signal strength is discussed. The document also suggest that a signal strength is detected from the received beacon signal. In addition it is suggested that this signal strength is compared to a predetermined threshold. Finally, D1 states that hand-off decisions made from the result of evaluated beacon signals are made by the mobile terminals which have received the beacon signal. D1 and D2 both refer to the same technical field. The person skilled in the art therefore can come up with a solution comparable to the one suggested in any of claims 4,9,10,13,17,22,23,26,30, 38,43 and 46 wherein communication information is forwarded via broadcasted beacon packets, by way of combining what is known from D1 and D2. For this reason also these claims fail to involve an inventive step.

Considering claims 5-8,18-21,31-34 and 39-42, exchange information mentioned in D1 include information, and as such an indication, about different networks, frequency carriers, traffic load, neighbour cell lists. Claims 11,12,24,25,44 and 45 only refer to commonly known alternatives for executing inter-frequency or intra-frequency changeovers, respectively, both alternatives of which may be executed by the embodiment described in D1. Consequently, also these claims fail to describe a novel invention. Therefore, these claims all fail to describe a novel invention.